

An extension of the known range of the Mexican
bald cypress

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During February and March of 1933 I had the privilege of accompanying Dr. Forrest Shreve and Dr. T. D. Mallery of the Carnegie Institution's Tucson Desert Laboratory on a field trip into Sonora, Mexico. Near the southern limit of our exploration we enquired about the character of the country east of the delta region of the Rio Yaqui, and Mr. Huffacker, an automobile dealer at Obregon (formerly called Cajeme) told us that there were a number of interesting trees and shrubs growing in the low hills a few miles to the east and suggested that we swing around the loop formed by the road which ran from Obregon through Tesapaco, Cedros, and Queriego, thence back to Obregon.

We reached Cedros during the forenoon of March 5th and there found a colony of about a dozen trees of *Taxodium mucronatum* Tenore. The trees grew among granite boulders and on the exposed country rock along the banks of the Rio Cedros. The larger specimens were about one and a half meters in diameter and from twenty to thirty meters high. The trunks were straight, showed only slight buttresses at the bases, and began to branch at distances varying from two to ten meters from the ground. Most of them seemed to be healthy and thriving, but no seedlings or trees under fifteen meters height were observed.

Mexicans living in the village said that the trees were more abundant and attained greater size farther up the stream in the mountains toward the east. They did not know, however, whether or not the tree occurred in Chihuahua. A second, smaller colony was seen along the banks of the Rio Cedros about four kilometers farther down the stream where we crossed it on our way to Queriego. These individuals looked less healthy than those at Cedros and were very much smaller and less symmetrical.

Standley (1920) reported that the range of *Taxodium mucronatum* extended from Sinaloa to Coahuila and southward into Guatemala. Pilger (1926) stated that the trees grew between 1400 and 2300 meters altitude in the Mexican tableland,

and both mentioned that they grew chiefly in wet soil. Cedros is over 100 kilometers north of the Sinaloa-Sonora line (about Long. 109° 20' W., Lat. 27° 40' N.), at an altitude of about 800 meters, and is situated in a small valley that supports a flora containing a large percentage of Lower Sonoran, desert species. Thus the Cedros station is of considerable interest from three points of view; it is the first station reported for the genus in the state of Sonora, it is at an elevation about 600 meters below that at which the species usually thrives, and it is well out in the desert area, connected with the higher, moister, mountainous regions by the narrow ribbon of the stream.

There are slightly differing reports as to whether the leaves of *T. mucronatum* are deciduous or persistent. Rheder (1927) writes, "Also the Mexican *Taxodium mucronatum* (*T. distichum* var. *m.* Henry) with persistent lvs. is not hardy, but is occasionally planted in Calif." Pilger (1926) says, ". . . die Kurzzweige mit gescheitelten Blättern werden erst im zweiten Jahre abgeworfen; . . ." and Koch (1873) writes, ". . . Zweige im Vaterlande in der Regel nicht abfallend; . . ." but Standley (1920) describes the tree as having ". . . leaves (and many of the young branches) deciduous, . . .". Bentham and Hooker (1880) in their characterization of the genus, say that the leaves are "deciduous or sub-persistent."

Probably Bentham and Hooker's term "sub-persistent" is a happier one than "persistent" in describing the leaves and young branchlets of *T. mucronatum*. Pilger's statement implies that the old leaves may be pushed from the branchlets by the new growth as it comes out during the second year, and Koch's that the trees normally have some foliage on them throughout the year.

At the time the collection (Wiggins 6431) was made at Cedros it was not possible to tell how much of the foliage had persisted through the winter months, for the new growth was already well advanced and practically no leaves from the previous season were still on the trees. However, it was quite obvious that the previous year's growth did not persist *through* the growing season of the second year. In a half dozen herbarium sheets there was only one small branchlet to which an old leaf remained attached.

A few mature cones were still on the tree, but the scales fell

apart at a touch so none of them could be preserved intact. The young ovulate cones were from 8 to 12 mm. in length. The male cones had not yet begun to shed pollen and were only 2 or 3 mm. long.

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